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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,456	12/29/2004	Kazumichi Kayama	AW-C510	5371

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EXAMINER

HOLMES, JUSTIN K

ART UNIT PAPER NUMBER

3681

DATE MAILED: 09/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/519,456	Applicant(s) KAYAMA ET AL.	
	Examiner Justin K. Holmes	Art Unit 3681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20,21 and 32-35 is/are rejected.
- 7) ☒ Claim(s) 22-31,36 and 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/10/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Examiner acknowledges receipt of the Information Disclosure Statement filed on February 10, 2005.
2. The Examiner acknowledges receipt of the Preliminary Amendment filed on December 29, 2004. The substitute Specification and Abstract have been entered. Claims 20-37 are pending.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "drive source" as defined in claim 20 and "differential unit for outputting rotation to drive wheels and a counter shaft unit for engaging said differential unit, wherein said output member is a counter gear meshing with said counter shaft unit" as defined in claim 35 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. The term "relatively slow to medium speed" in claim 32 is a relative term which renders the claim indefinite. The term "relatively" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. However, in an effort to continue prosecution the Examiner is interpreting "relatively slow to medium speed" as any speed that is not the highest number speed or gear.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section

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351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 20 and 32-35 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,252,117 to Morisawa et al.

The Morisawa et al. patent teaches an automatic transmission for a vehicle having an input shaft 10 rotatably driven by output rotation of a drive source; a decelerating first planetary gear pg1 unit comprising an input rotary component 11s that receives as input the rotation of said input shaft 10, a decelerated rotary component 11c that rotates at a speed decelerated from the speed of rotation of the input rotary component 11s and an intermediate component 11p2 for transfer of rotation from said input rotary component 11s to said decelerated rotary component 11c; engaging means c12 for operating the rotation of the input component 11s; a second planetary gear unit pg2 comprising a first rotary element, a second rotary element, a third rotary element and a fourth rotary element, said second planetary gear pg2 unit receiving input of the decelerated rotation of said decelerated rotary component 11c; a first clutch c11 for connecting and disconnecting said input shaft 10 to and from said second rotary element s12s2; a second clutch c13 for connecting and disconnecting said input shaft 10 to and from said third rotary element 12c; and an output member 13 for outputting the rotation of said fourth rotary element 12r to drive wheels of the vehicle; wherein said automatic transmission provides at least five forward speeds and one reverse speed, and said first clutch c11 and said second clutch c13 are engaged together in fourth speed forward; wherein said first planetary gear unit pg1 and said engaging means c12 are located on one axial side of said second planetary gear unit pg2;

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wherein said first clutch c11 and said second clutch c13 are located on a side of said second planetary gear unit pg2 axially opposite said one side; and wherein said output member 13 is disposed between (1) said second planetary gear unit pg2 and (2) said first planetary gear unit pg1 and said engaging means c12. See Figs. 1 and 3.

Regarding claim 32, the first clutch c11 is engaged in gears 1-4 and gears 1-4 are used at a relatively slow to medium speed, and is not used in gears 5 and 6. See Fig. 3.

Regarding claim 33, the first clutch c11 has friction members, a hydraulic servo 48 that engages the friction members, a clutch drum 44 and a hub unit 47, and the drum 44 is connect to the input shaft 14, the hub unit 47 is connect to the second rotary element 12s2. See column 6, lines 3-42 and Figs. 1 and 2.

Regarding claim 34, a transmitting member 11c connects the decelerated rotary component 11c of the first planetary gear unit pg1 and the first rotary component 12p1 of the second planetary gear unit pg2, the transmitting member 11c has an axially extending portion located radially inward of the output member 13. See Fig. 1.

Regarding claim 35, a differential unit 18 for outputting rotation to the drive wheels, and a counter shaft unit 16 for engaging the differential unit 18, and the output member 13 is a counter gear meshing with the counter shaft unit 16. See column 4, lines 33-38 and Fig. 1.

Accordingly, all the elements of claims 20 and 32-35 are anticipated by the Morisawa et al. patent.

8. Claims 20, 21, 32 and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Publication No. 2003/0109353 to Miyazaki et al.

The Miyazaki et al. publication teaches an automatic transmission for a vehicle having an input shaft 22 rotatably driven by output rotation of a drive source; a decelerating first planetary gear 10 unit comprising an input rotary component s1 that receives as input the rotation of said input shaft 22, a decelerated rotary component r1 that rotates at a speed decelerated from the speed of rotation of the input rotary component s1 and an intermediate component ca1 for transfer of rotation from said input rotary component s1 to said decelerated rotary component r1; engaging means b3 for operating the rotation of the intermediate component ca1; a second planetary gear unit 20 comprising a first rotary element s3, a second rotary element, a third rotary element and a fourth rotary element, said second planetary gear unit receiving input of the decelerated rotation of said decelerated rotary component; a first clutch c1 for connecting and disconnecting said input shaft 11 to and from said second rotary element s2; a second clutch c2 for connecting and disconnecting said input shaft 22 to and from said third rotary element r2; and an output member 24 for outputting the rotation of said fourth rotary element ca3 to drive wheels of the vehicle; wherein said automatic transmission provides at least five forward speeds and one reverse speed, and said first clutch c1 and said second clutch c2 are engaged together in fourth speed forward; wherein said first planetary gear unit 10 and said engaging means are located on one axial side of said second planetary gear unit 20; wherein said first clutch c1 and said second clutch c2 are located on a side of said second planetary gear unit 20 axially

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opposite said one side; and wherein said output member 24 is disposed between (1) said second planetary gear unit 10 and (2) said first planetary gear unit 10 and said engaging means b3. See Figs. 1A and 1B.

Regarding claim 21, the engaging means is a first brake b3 for braking the intermediate component ca1. See 1A and 1B.

Regarding claim 32, the first clutch c1 is engaged in gears 1-4 and gears 1-4 are used at a relatively slow to medium speed, and is not used in gears 5 and 6. See Fig. 1b.

Regarding claim 34, a transmitting member RM1 connects the decelerated rotary component r1 of the first planetary gear unit 10 and the first rotary component s3 of the second planetary gear unit 20, the transmitting member rm1 has an axially extending portion located radially inward of the output member 24. See Fig. 1a.

Accordingly, all the elements of claims 20, 21, 32 and 34 are anticipated by the Miyazaki et al. publication.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Publication No. 2003/0109353 to Miyazaki et al. in view of U.S. Patent No. 5,525,117 to Morisawa et al.

The Miyazaki et al. publication lacks a teaching of a differential unit for outputting rotation to drive wheels and a counter shaft unit for engaging the differential unit.

The Morisawa et al. patent teaches front differential 18 for outputting rotation to drive wheels and a counter shaft unit 15 for engaging the differential unit 18 and the output member is a counter gear 13 meshing with the counter shaft unit 15. See column 4, lines 32-38 and Fig. 1.

It would have been obvious to one having ordinary skill in the art to modify the Miyazaki et al. publication to include the differential unit and counter shaft unit as taught in the Morisawa et al. patent in order to provide power to driven wheels through a transmission. See column 1, lines 7-11. The Examiner notes that it is well known in the art that vehicle transmissions are used to drive wheels to a vehicle.

Allowable Subject Matter

11. Claims 22-31, 36 and 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 5,133,697 to Hattori; U.S. Patent No. 5,865,289 to Ishimaru; U.S. Patent No. 6,176,802 to Kasuya et al.; and U.S. Patent No. 6,960,150 to Armstrong et al. all teach planetary transmissions.

Facsimile Transmission

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is (571) 273-8300. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin K. Holmes whose telephone number is (571) 272-5930. The examiner can normally be reached on 8:00am to 4:30pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JKH
9/21/06

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